What is claimed is:

1. A method for populating a solid surface with cells by increasing the cell-to-cell cohesion of said cells.

2. A method of claim 1 for populating a solid surface with cells, said method comprising reducing the amount of dissociation of cadherin from the cytoskeleton of said cells.

3. A method of claim 2 wherein dissociation is reduced by reducing or eliminating the phosphorylation of a molecule associated with the adherens junction between the cells.

4. A method of claim 1 for populating a solid surface with cells, said method comprising increasing the amount of cadherin per cell.

5. A method of claim 1 for populating a solid surface with cells, wherein the cells are human vascular endothelial cells, said method comprising increasing the cell-to-cell cohesion of said endothelial cells.

6. A method of claim 5 for populating a solid surface with human vascular endothelial cells, said method comprising reducing the amount of dissociation of cadherin from the cytoskeleton of said human vascular endothelial cells.

7. A method of claim 6 wherein dissociation is reduced by reducing or eliminating the phosphorylation of a molecule associated with the adherens junction between the human vascular endothelial cells.

8. The method of claim 7 wherein the molecule associated with the adherens junction is β catenin.

9. The method of claim 7 wherein phosphorylation is reduced or eliminated by use of an amount of an agent which is known to modify phosphorylation effective to reduce or eliminate phosphorylation.

10. A method of claim 5 for populating a solid surface with human vascular endothelial cells, said process comprising increasing the amount of cadherin per cell.

11. A method of Claim 10 wherein the amount of cadherin per cell is increased by increasing the number of expressible cadherin genes in the endothelial cells.

12. A method of Claim 10 wherein the cadherin increased in amount comprises a eukaryotic cadherin polypeptide.

13. The method of Claim 12 wherein the eukaryotic cadherin polypeptide is a mammalian cadherin polypeptide.

14. A method of Claim 13 wherein the mammalian cadherin polypeptide is a human cadherin polypeptide.

15. A method of Claim 14 wherein the human cadherin polypeptide is selected from the group consisting of an N-cadherin polypeptide, a P-cadherin polypeptide, An E-cadherin polypeptide, and a VE-cadherin polypeptide.

16. A cell-coated solid surface comprising:

a) a solid surface; and

b) a population of altered human vascular endothelial cells, said cells adhering to said surface, where compared to endothelial cells of equivalent origin, said altered cells contain more cadherin per cell.

17. A cell-coated surface of Claim 16 wherein the surface is the inner surface of a tubular graft.

18. A cell-coated solid surface comprising:

a) a solid surface; and

b) a population of altered human vascular endothelial cells, said cells adhering to said surface, where compared to endothelial cells of equivalent origin, said altered cells contain more cadherin genes per cell.

19. A cell-coated surface of Claim 18, wherein the surface is the inner surface of a tubular graft.

20. A cell-coated surface of Claim 18 wherein said surface is within a device in contact with the arterial and/or venous system.

21. A population of native vascular endothelial cells adjacent to a vascular device where, compared to endothelial cells of equivalent origin, said altered cells contain more cadherin per cell.

22. A population of human vascular endothelial cells adjacent to a vascular device where, compared to endothelial cells of equivalent origin, said cells have an increased number of cadherins associated with a cytoskeleton.

23. A method of increasing cell-to-cell cohesion in human vascular endothelial cells.

24. A method of claim 23 comprising increasing the amount of cadherin in native vascular endothelial cells.

Rule 1.126 Renumbering

25. A method of Claim 23 wherein the increase in cohesion is achieved by increasing the number of cell surface molecules involved in cell-cell cohesion.

26. A method of claim 23 comprising reducing the amount of dissociation of cadherin from the cytoskeleton of said human vascular endothelial cells.

27. A method of Claim 26 wherein the increase in cohesion is achieved by increasing the number of functional molecules bridging cadherins to a cytoskeleton.

28. A method of populating a solid surface with nonhuman endothelial cells, said cells not rejected in humans, said process comprising increasing the cell-to-cell cohesion of said endothelial cells.

29. A method of populating a solid surface with nonhuman endothelial cells, especially vascular endothelial cells, said cells not rejected in humans, said process comprising increasing the amount of cadherin per cell.

30. A method of claim 28 for populating a solid surface with nonhuman endothelial cells, said method comprising reducing the amount of dissociation of cadherin from the cytoskeleton of said nonhuman endothelial cells.

31. A method of claim 29 wherein dissociation is reduced by reducing or eliminating the phosphorylation of a molecule associated with the adherens junction between the nonhuman endothelial cells.

32. The method of claim 30 wherein the molecule associated with the adherens junction is β catenin.

Rule 1.126 Renumbering

33. 32. The method of claim 30 wherein phosphorylation is reduced or eliminated by use of an amount of an agent which modifies phosphorylation effective to reduce or eliminate phosphorylation.

34. 33. A method for determining whether an agent reduces or eliminates phosphorylation of a molecule associated with the adherens junction between the human vascular endothelial cells, comprising:

a) adding said agent to a preparation of human vascular endothelial cells in the presence of a solid surface;

b) allowing said human vascular endothelial cells to populate the solid surface; and

c) determining the extent to which the human vascular endothelial cells have populated the solid surface in the presence of the agent and in the absence of the agent, and if the former is greater than the latter, thereby determining whether the agent reduces or eliminates phosphorylation of a molecule associated with the adherens junction